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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/520,124	01/03/2005	Kazuo Higuchi	040894-7160	9680

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EXAMINER

CHUKWURAH, NATHANIEL C

ART UNIT	PAPER NUMBER
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3721

DATE MAILED: 02/10/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

6

Office Action Summary	Application No. 10/520,124	Applicant(s) HIGUCHI, KAZUO	
	Examiner Nathaniel C. Chukwurah	Art Unit 3721	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 1/3/2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 03 January 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date: _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>1/3/05; 10/5/05</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-6 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 1, on line 15, “or” is indefinite because it is unclear as to whether applicant is claiming one inner side or one of outer side. Further, in claim 1, “the position” on line 18 lacks antecedent basis.

In claim 4, on line 13, “or” is indefinite because it is unclear as to whether applicant is claiming one inner side or one of outer side.

In claim 2, “slid” on line 6 lacks antecedent basis; and on lines 6-7 “each of the conductors” lacks antecedent basis. Further, in the same claim, “terminals” on line 9 lacks antecedent basis.

In claim 3, the phrase “cutting off” on line 8, it is unclear as to by what the light is cut off.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

Art Unit: 3721

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Kurosawa (US 4,623,082).

With regard to claim 1, Kurosawa discloses a staple remaining amount detecting apparatus (PT2) in an electric stapler (1), comprising a staple cartridge (2) provided attachably and detachably to and from a magazine portion (8) of a stapler main body (3) for containing sheet-like staples (25) each constituted by connecting a number of staples in a straight form in a sheet-like shape in a stacked state, wherein the staples are guided out to outside of an opening portion of a lower end portion of a front wall of the cartridge (2) main body successively from a lower end portion of the sheet-like staples (25), comprising: an engaging plate (26) arranged at an upper portion of the cartridge (2) main body and engaged with the sheet-like staple (25) at a topmost portion; and a position detecting mechanism (photosensor PT2) provided on an inner side or an outer side of the cartridge (2) main body capable of detecting a position of the engaging plate (26), wherein a remaining amount of the sheet-like staples is detected based on detection of the position by the position detecting mechanism (PT2).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 2-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kurosawa.

With regard to claim 2 and to the extent understood, Examiner Takes Official Notice that sensors comprising a conductor and an output terminal are well known in the art and their use instead of the photoelectric sensor of Kurosawa would have been obvious to one skilled in the art to achieve an accurate detection.

With regard to claim 3 and to extent understood, the position detecting mechanism (PT2 photosensor) of Kurosawa comprises a portion of transmitting and a portion of reflecting light (col. 10, lines 11-12), wherein the engaging plate is provided with an optical sensor.

The staple apparatus of discloses all claimed subject matter but lacks specific teaching of cutting off light irradiated to the portion of transmitting and the portion of reflecting light, and the remaining amount of the sheet-like staple is detected based on detection of the position.

Examiner Takes Official Notice that photosensor irradiating light and cutting off is well known in the art and would have been obvious to one skilled in the art for accurate detection of the staples.

With regard to claim 4, Kurosawa discloses a staple remaining amount detecting apparatus (PT2) in an electric stapler (1), used in an electric stapler comprising a staple cartridge (2) provided attachably and detachably to and from a magazine portion (8) of a stapler main body (3) for containing a number of staples (25) each in a straight form, wherein the staples are successively guided out to outside of an opening portion of the cartridge (2) main body from the staple at a front end portion, comprising: an engaging plate (26) arranged at an upper portion of the cartridge (2) main body; and a position detecting mechanism (photosensor PT2) provided on an inner side or an outer side of the cartridge (2) main body capable of detecting a position of the

Art Unit: 3721

engaging plate (26); wherein a remaining amount of the sheet-like staples (25) is detected based on detection of the position by the detecting mechanism (PT2).

Kurosawa discloses all claimed subject matter but lacks specific teaching staples wound in a roll-like shape. However, since the use of rolled staples are well known in the art, it would have been obvious to one skilled in the art to arrange the sheet formed staples in roll-like form for easy disposal from the cartridge to the stapling position.

With regard to claim 5 and to the extent understood, Examiner Takes Official Notice that sensors comprising a conductor and an output terminal are well known in the art and their use instead of the photoelectric sensor of Kurosawa would have been obvious to one skilled in the art to achieve an accurate detection.

With regard to claim 6 and to the extent understood, the position detecting mechanism (PT2 photosensor) of Kurosawa comprises a portion of transmitting and a portion of reflecting light (col. 10, lines 11-12), the engaging plate can be provided with an optical sensor.

The staple apparatus of discloses all claimed subject matter but lacks specific teaching of cutting off light irradiated to the portion of transmitting and the portion of reflecting light, and the remaining amount of the sheet-like staple is detected based on detection of the position.

Examiner Takes Official Notice that photosensor irradiating light and cutting off is well known in the art and would have been obvious to one skilled in the art to provide the staple device of Kurosawa with function of irradiating light and cutting off for accurate detection of the staples.

Art Unit: 3721

Conclusion

Refer to attachment for notice of references cited and recommended for consideration based on their disclosure of limitations of the claimed invention.

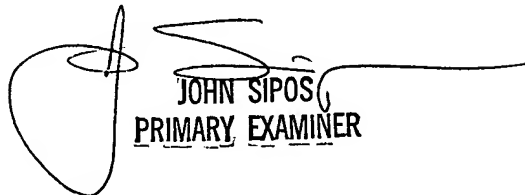
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nathaniel C. Chukwurah whose telephone number is (571) 272-4457. The examiner can normally be reached on M-F 6:00AM-2:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rinaldi Rada can be reached on (571) 272-4467. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

NC

January 27, 2006.


JOHN SIPOS
PRIMARY EXAMINER